AAQ51543;

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Transfer of the contract of th
                                                                                      Query Match
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Matches 170
                                                                                                                          The polypeptide induced in macrophages by lipopolysaccharide stimulates cell prolification (esp. when costimulated with IL-4) promote activation, cytotoxicity, and mobilisation for LAK cells; promote recruitment of suppressive peritoneal exudate cells; promote generation of immunocompetent lymph node cells (INC) and have trypanocidal and trypanolytic activity. The human and murine sequences are given in (AAQ51543-45), petide fragments able to generate antibodies are given in (AAR51951-61) (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                New polypeptide induced in macrophage(s) by lipo-polysaccharide useful e.g. as antitumour, antiinflammatory or trypanocidal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Devos
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)B; AAR43682.
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                                                                                    542 A; 1241 C; 1292 G;
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53.1%;
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(represented by (N)40 in the 
estimated length ca. 1000 bp"
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Pred. No. 0.0015;
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regions and

The specification describes antisense oligonucleotides (AAX52869-X55271) directed against at least 2 mRNAs selected from target genes, coding and non-coding regions of RNAs corresponding to target genes, gene initiation codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'-end and the juxta-section between coding and non-coding

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RESULT 14
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                                                                                     New antisense oligonucleotides used vasoconstriction
                                                                                                                                      Nyce
                                                           Disclosure; Page 37; 120pp;
                                                                                                                   WPI; 1999-229400/19
                                                                                                                                                                             09-JUN-1998;
17-SEP-1997;
                                                                                                                                                                                                          17-SEP-1998;
                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                        prostate cancer;
                                                                                                                                                                                                                                                                                                                                                                                                  Human adenosine Al receptor antisense oligonucleotide fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUL-1999
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                                                                                                                                                                                                                              25-MAR-1999.
                                                                                                                                                                                                                                                                                                          chronic obstructive pulmonary disease; leukemia; colon cancer; breast cancer; lung cancer; pancrea
                                                                                                                                                                                                                                                                                                                                                            pulmonary vasoconstriction; inflammation; allergic
                                                                                                                                                                                                                                                                                                                                                                     Antisense oligonucleotide; multiple target; antisense impaired respiration; inflammation; lung disease;
                                                                                                                                                           (UYEC-) UNIV
                                                                                                                                                                                                                                                 WO9913886-A1
                                                                                                                                                                                                                                                                                                                               pulmonary hypertension; pulmonary vasoconstriction; emphysema;
                                                                                                                                                                                                                                                                                                                                     acute asthma; allergy; asthma; impeded respiration; respiratory distress syndrome; pain; cystic fibrosis;
                                                                                                                                                                                                                                                                                                   nepatocellular carcinoma; kidney
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                                                                                                                                                                                                                                                                                                                 Human; cytosine methylation; 5'-CpG-3'; uracil; cytosine; diagnosis; drug; side effect; cancer; central nervous system; cardiovascular; gastrointestinal; respiratory system; single nucleotide polymorphism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oligonucleotides (specifically AAX55180-271) can be used for the antisense treatment of diseases and conditions. Typical diseases conditions are those associated with impaired respiration and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABQ52496 standard; DNA; 600 BP
                           01-SEP-2001; 2001WO-EP10074
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligonucleotide
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                                                                                                                                                             WO200218632-A2
                                                                                                                                                                                                                        Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Determining the degree of cytosine methylation in genomic DNA, for diagnosis and prognosis, comprises selective hybridization amplicons from chemically treated DNA -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             types and for investigating cell differentiation. The method allows the methylation status of many C residues to be determined simultaneously. The ABQ13410.ABQ54121 represent genomic DNA sequences used to illustrate the method for determining the degree of cytosine methylation described in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This invention describes a novel method for determining the degree of methylation of a particular cytosine in a motif 5'-CpG-3', present in a genomic sample of DNA. The sample is treated chemically to convert cytosine (C) but not methylated C, to uracil, then part of the genomic cytosine (C) but not methylated C, to uracil, then part of the genomic
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05-SEP-2000; 2000DE-1044543.
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Human neuronal NAChR alpha7 subunit encoding cDNA

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                                                                                                                                                                                                                                                                                                                                       substantially free of contamination from many other receptor proteins, are useful for observing the effect of a drug substance on a particular subtype to perform in vitro screening of the drug substance in a test system that is specific for humans. The antibodies can be used in immunochemistry and for diagnostic and therapeutic applications. The present sequence represents a human neuronal NAChR alpha7 subunit
                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a suitable host cell transfected with an isolated nucleic acid molecule comprising a sequence of nucleotides ribonucleotides that encodes at least one alpha or beta subunit of human neuronal nicotinic acetylcholine receptor (NAChR). The compos and methods of the present invention, which provide a means to prep synthetic or recombinant receptors and receptor subunits that are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cell comprising nucleic acids encoding human alpha and beta subunit neuronal nicotinic acetylcholine receptors, useful for in vitro screening of a drug substance in a test system specific for humans
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'note= "neuronal nicotinic acetylcholine receptor"
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30-NOV-1992;
08-MAR-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                  Identifying antagonists or agonists of human neuronal nicotinic acetylcholine receptors, by contacting recombinant cells with test compound, and measuring ion flux of cells or binding of compound to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
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                                                                                                                                                                                               Sequence 1876 BP;
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P-PSDB; ABG70492.
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93US-0028031.
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Best Local Similarity
Matches 127; Conserv
                                                                                                                                                                                                                                                                                          and expression density of various subunits in normal vs diseased brain tissues. Testing of single receptor subunits or specific receptor subunit combinations with a variety of potential agonists or antagonists provides information with respect to the function and activity of the individual subunits and should lead to the identification and design of compounds that are capable of very specific interaction with one or
                                                                                                                                                                                                                                                                                                                                                                             The present sequence encodes a human neuronal nicotinic acetylcholine receptor (NAChR) subunit. The cells expressing the alpha and/or beta NAChR subunits may be used in a method of screening compounds to identify any which modulate the activity of human neuronal NAChR. Subunit specific antibodies may be used to monitor the distribution
                                                                                                                                                                                                                                                               compounds that are capable of very specific interaction with one or more receptor subtypes. The resulting drugs should exhibit fewer unwanted side effects than drugs identified e.g. screening with cells
                                                                                                                                                                                                                            Sequence 1876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 8; Page 78-79; 99pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   activity of the receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human neuronal nicotinic acetylcholine receptor subunits and DNA also transformed cells useful for screening cpds. which modulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1994-303024/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9420617-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-MAR-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB; AAW44153.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SIBI-)
                                                                                                                                                                                                                                                      express a variety of subtypes
                          441
                                                                                  381
 121
                                                                                                                                         321
                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tissue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neuronal nicotinic acetylcholine receptor alpha-7 subunit cDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      neuronal nicotinic acetylcholine receptor; alpha-7 rissue; screening; NAChR; antibody; ds.
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                                                                         GGCCGCAGGCCCAGGCCGACAGCCGAGACGTGGAGCGCCGCCCGGCTCGCTGCAGCT
                            CTGCACG
                                                     GGCCGCAGGCGCAGGCCGACAGCCGAGACGTGGAGCGCGCCGGCTCGCTGCAGCT
CTGCACG
                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ellis SB,
                                                                                                                                                                                                                          BP; 369 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93US-0028031
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127
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                                                                                                                                                                               27.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ωı
                                                                                                                                                                                                                         553 C; 530 G; 423 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Harpold MM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "neuronal nicotinic acetylcholine receptor alpha-7 subunit"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English.
                                                                                                                                                                    <u>,</u>
                                                                                                                                                                               Score 127;
Pred. No.
                                                                                                                                                                    Mismatches
                                                                                                                                                                            3.8e-13;
                                                                                                                                                                                              DB 15;
                                                                                                                                                                                             Length 1876;
                                                                                                                                                                  Indels
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RESULT 10

22-JAN-2003

(first entry)

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RESULT 11
ABV73248
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Best Local Similarity
Matches 127; Conserv
ABV73248;
                   ABV73248
                                                                                                                                                                                                                                                 Sequence 1876 BP; 369 A; 553 C; 531 G; 423 T; 0 other;
                                                                                                                                                                                                                                                                                            the human neuronal nicotinic acetylcholine receptor (nAChR). Host cells, esp: mammalian cells or amphibian occytes, carrying alpha-7 nucleic acids, opt. in combination with other alpha and/or beta subunit nucleic acids (see also AAT48232-38, AAT48240-41), express
                                                                                                                                                                                                                                                                                   subunit nucleic acids (see also Arrecombinant nAChR subunits useful
                                                                                                                                                                                                                                                                                                                                         A DNA sequence (AAT48239) codes for the alpha-7 subunit
                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 71-73; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-065463/06.
P-PSDB; AAW09025.
                                                                                                                                                                                                                                                                         modulate the activity of human nAChRs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Neuronal nicotinic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT48239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT48239 standard; DNA; 1876 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9641876-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Neuronal nicotinic acetylcholine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SIBI-) SIBIA NEUROSCIENCES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ligand-gated
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                                                                                                                                                                                                                                                                                                                                                                                   acids encoding nicotinic acetylcholine receptor sub-units - screening to determine the effect of drugs on the receptor
                   standard;
                                                                                                                                                                                  GGCCGCAGGCGCAGGCCGACAGCCGAGACGTGGAGCGCGCCGGCTCGCTGCAGCT
                                                                         CTGCACG
                                                                                               CTGCACG 447
                                                                                                                  GGCCGCAGGCGCAGGCGACAGCCGAGACGTGGAGCGCGCCGGCTCGCTGCAGCT
                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Harpold
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         receptor;
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73..1581
/*tag= a
                                                                         127
                   cDNA; 1876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acetylcholine
                                                                                                                                                                                                                  27.8%;
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                                                                                                                                                                                                         0,
                                                                                                                                                                                                                  Score 127; DB 18;
Pred. No. 3.8e-13;
                   ВP
                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    receptor; nAChR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          receptor alpha-7
                                                                                                                                                                                                                                                                                   for identifying cpds.
                                                                                                                                                                                                                             Length
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RESULT 8
ABQ47035
ID ABQ4
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AC ABQ4
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AC ABQ4
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Best Local
                                                                                                                                                                               drug; side effect; cancer; central nervous system; cardiovascular; gastrointestinal; respiratory system; single nucleotide polymorph; cell differentiation; ds.
              Olek A,
                                                          01-SEP-2000;
05-SEP-2000;
                                                                                          01-SEP-2001; 2001WO-EP10074
                                                                                                                   07-MAR-2002
                                                                                                                                       WO200218632-A2
                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                  Human; cytosine methylation; 5'-CpG-3'; uracil; cytosine; diagnosis;
                                                                                                                                                                                                                                       Oligonucleotide for detecting cytosine methylation SEQ ID NO 33626.
                                                                                                                                                                                                                                                                 12-JUL-2002
                                                                                                                                                                                                                                                                                        ABQ47035;
                                                                                                                                                                                                                                                                                                              ABQ47035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABQ13410-ABQ54121 represent genomic DNA sequences used to illustrate the method for determining the degree of cytosine methylation described in the disclosure of the invention,
                                    (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 556 BP; 66
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                                                                                                                                                                                                                                                                                                                                                                                           448
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                                    EPIGENOMICS
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              Piepenbrock C,
                                                                                                                                                                                                                                                                                                              standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                      ATAMAACCAC 125
                                                                                                                                                                                                                                                                                                                                                                                            GTAAAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                 TCAACATACGCTACTCGCCGAAAAACGTCTAACTAACGCTAACCGCGTCGCTCCTACACG
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                                                         2000DE-1043826.
2000DE-1044543.
                                                                                                                                                                                                                                                                 (first
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                                    ΑG
                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                           457
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             Berlin K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches 136; Indels
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              Guetig
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                                                                                                                                                                                            polymorphism;
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RESULT 9
AAV12197
ID AAV1
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AC AAV1
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                                                   is used: (i) for diagnosis and/or prognosis of side effects of therapeutic drugs and of a wide range of diseases, e.g. cancer, disorder of the central nervous, cardiovascular, gastrointestinal and respiratory systems etc., particularly by detecting mutations or single nucleotide polymorphisms (SNP's); and (ii) for differentiation of cell or tissue types and for investigating cell differentiation. The method allows the methylation status of many C residues to be determined simultaneously. ABQ13410-ABQ54121 represent genomic DNA sequences used to illustrate the method for determining the degree of cytosine methylation described in the disclosure of the invention.
                                                                                                                                                                                                                                                                                                                       This invention describes a novel method for determining the degree of methylation of a particular cytosine in a motif 5'-CpG-3', present in a genomic sample of DNA. The sample is treated chemically to convert cytosine (C) but not methylated C, to uracil, then part of the genomic DNA that contains the target C is amplified to form a labeled amplicon. The amplicon is hybridised to two classes, each with at least one member, of oligonuclectides and/or peptide-nucleic acid (PNA) oligoners and the degree of hybridisation to both classes is determined from the label on the amplicon. From the ratio of labels hybridised to the two classes of oligoners, the degree of methylation is calculated. The meth is used: (i) for diagnosis and/or prognosis of side effects of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Determining the degree of cytosine methylation in genomic DNA, useful for diagnosis and prognosis, comprises selective hybridization of amplicons from chemically treated DNA .
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                                                                                                                                                                                                                                                                                                  disorders
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Sequence 556 BP; 227 A; 192 C; 71 G; 66 T; 0 other;

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Query Match
Best Local Similarity
Matches 294; Conserv
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ATAAAACCAC
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                                                                                                                                                                                                         TCAACATACGCTACTCGCCGAAAAACGTCTAACTAACGCTAACCGCGTCGCTCCTACACG
                                                                                                                                                                                                                                                                                                              ACGCGCGCCCGACTCCTTAAAAACGCGCGAACCGAACGACGAAATACCTCTATAACCGCA
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                                                                                                                                                                                                                                                                                                              447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             387
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267
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                                                                                                                                                                                                               422
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Conservative

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Score 212.4; DB 24; Length Pred. No. 2.5e-27; O; Mismatches 136; Indels

DB 24; Length

556; 0;

Gaps

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46.5%;

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AAV12197

AAV12197

standard; cDNA;

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RESULT 6
ABL34019/c
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                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                    The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel
                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acid comprising fractor diagnosis and treatment cytosine methylation -
                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JUN-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acute myeloid leukaemia; Alzheimer's neurofibromatosis; rheumatoid arthrit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W0200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   neuroprotective; anti-HIV; anticonvulsant; ophthalmological;
antirheumatic; antiarthritic; antidiabetic; antipsoriatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antiarteriosclerotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABL34019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL34019 standard;
                                                                                                                                                                                                                Local Similarity
 516
                        181
                                                  576
                                                                          121
                                                                                                  636
                                                                                                                                                    696
                                                                                                                                                                                                   310;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EPIGENOMICS
                                                                                                                 AGGCCGAGAGCCCGCTCGGTGGAGACTGGGGGTGGAGGTGCCCGGAGCGTACCCAGCGCCC
                                                                                                                                                                     AGAACGCAAGGGAGAGGTAGAGCCTGGCCTTGGGCAGAGCCCTGGCCAGAGGCGCG
                                                                                                                                                                                                                                                    5304
CCCGAACTAAAAAAAAAAAAACGAAAACGAAAACGAAAACGAAACT
                                                GAAAATACCTCCCGCTCACACCTCGAACTACAATTCCCTAAATAACCGCCGAAACGCTAA
                                                                      GGGAGTACCTCCCGCTCACACCTCGGGCTGCAGTTCCCTGGGTGGCCGCCGAGACGCTGG
                                                                                                AAACCGAAAACCCGCTCGATAAAAACTAAAAATAAAAATACCCGAAACGTACCCAACGCC
                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID
                      AAAACGCAAAAAAAAATAAAACCTAACCTTAAACAACCCCTAACCTAACCAAAAACGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Piepenbrock
                                                                                                                                                                                                                                                                          arthritis,
The present
                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000DE-1032529
2000DE-1043826
                                                                                                                                                                                                                                                   B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                        NO 1992; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                  1400 A; 152 C; 1205 G; 2547 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ĀG
                                                                                                                                                                                                            48.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ç
                                                                                                                                                                                                                                                                          sequence is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antianaemic; cytostatic; nootropic
                                                                                                                                                                                                                                                                                                                                                                                                                              fragment of chemically modified ment of diseases associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Berlin
                                                                                                                                                                                                   ٥,
                                                                                                                                                                                                Score 221.8; D
Pred. No. 4.7e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ζ,
                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease;
                                                                                                                                                                                                            4.7e-29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ID NO:
                                                                                                                                                                                                                                                                            ō,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ease; AIDS;
psoriasis;
                                                                                                                                                                                                                         DB 24;
                                                                                                                                                                                                  147;
                                                                                                                                                                                                                                                                          the
                                                                                                                                                                                                                                                                          invention
                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          epilepsy;
                                                                                                                                                                                                                                                                                                                                                                                                                              gene, us
                                                                                                                                                                                                                          5304;
                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                            useful
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                                                                                                                         120
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RESULT 7
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AC ABQ470
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     methylation of a particular cytosine in a motif 5'-Cpg-3', present in a C genomic sample of DNA. The sample is treated chemically to convert CC cytosine (C) but not methylated C, to uracil, then part of the genomic CC DNA that contains the target C is amplified to form a labeled amplicon. The amplicon is hybridised to two classes, each with at least one member, of oligonucleotides and/or peptide-nucleic acid (PNA) oligomers and the degree of hybridisation to both classes is determined from the CC and the degree of hybridisation to both classes is determined from the CC classes of oligomers, the degree of methylation is calculated. The method is used; (i) for diagnosis and/or prognosis of side effects of therapeutic drugs and of a wide range of diseases, e.g. cancer, disorders of the central nervous, cardiovascular, gastrointestinal and respiratory cybes and for investigating cell differentiations or single nucleotide types and for investigating cell differentiation. The method allows the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                            This invention describes methylation of a particu
                                                                                                                                                                                                                                                                              Determining the degree of cytosine methylation in genomic DNA, for diagnosis and prognosis, comprises selective hybridization amplicons from chemically treated DNA -
                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                    Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                              01-SEP-2000; 2000DE-1043826.
05-SEP-2000; 2000DE-1044543.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    drug; side effect; cancer; central new
gastrointestinal; respiratory system;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200218632-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SNP; cell differentiation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABQ47034;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABQ47034 standard;
                                                                                                                                                                                                                                                                                                                                                                                                   (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytosine
                                                                                                                                                                                                                                                                                                                                                                                                   EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eaeceeceaeereccrerereceeceeceeceeceeceeceeceaeaeeceaeeceaee
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACGACGAAATACCTCTATAACCGCAAACGCAAACCCGAACGACAACCGAAACGTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGCGCGGGGGGGGGGGGGGGGGGGGCGCCCGGCTCCTTAAAAGGCGCGCGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAACGCTAACCGCGTCGCTCCTACACGATAAAACCAC
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                                                                                                                                                                                                                                                    56pp + Sequence Listing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-EP10074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              methylation; 5'-CpG-3'; uracil;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                   A
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            detecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                         a novel method for determining the degree lar cytosine in a motif 5'-CpG-3', present
                                                                                                                                                                                                                                                                                                                                                                      Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytosine methylation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nervous system; cardiov
em; single nucleoria-
                                                                                                                                                                                                                                                    56pp;
                                                                                                                                                                                                                                                                                                                                                                      Guetig
                                                                                                                                                                                                                                                       German.
                                                                                                                                                                                                                                                                                                                                                                      D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                             the two
. The method
                                                                                                                                                                                                                                                                                               useful
of
                                                                  disorders
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of the central nervous, cardiovascular, gastrointestinal and respiratory systems etc., particularly by detecting mutations or single nucleotide polymorphisms (SNP's); and (ii) for differentiation of cell or tissue types and for investigating cell differentiation. The method allows the methylation status of many C residues to be determined simultaneously. ABQ13410-ABQ54121 represent genomic DNA sequences used to illustrate the method for determining the degree of cytosine methylation described in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therapeutic drugs and of a wide range of diseases, e.g. cancer, disorders of the central nervous, cardiovascular, gastrointestinal and resmirators.
                                                                                                                                drug; side effect; cancer; central nervous system; cardiovascular; gastrointestinal; respiratory system; single nucleotide polymorphism; SNP; cell differentiation; ds.
01-SEP-2000; 2000DE-1043826
                         01-SEP-2001;
                                                   07-MAR-2002
                                                                            WO200218632-A2
                                                                                                       Homo sapiens.
                                                                                                                                                                       Human; cytosine methylation; 5'-CpG-3'; uracil; cytosine; diagnosis;
                                                                                                                                                                                                  Oligonucleotide for detecting
                                                                                                                                                                                                                              12-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disclosure of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       al Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                           446
                                                                                                                                                                                                                                                                                                                                                                                                       361
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                                                                                                                                                                                                                                                                                                                                                   421
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           egectrogecageceregectagasegecegagecegagagecegeregeregaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCTGCAGTTCCCTGGGTGGCCGCCGAGACGCTGGCCCGGGCTGGAGGGATGGCGGGGCG 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGGGGGTGGAGGTGTTCGGAGCGTATTTAGCGTCGGGAGTATTTTTCGTTTATATTTCG
                                                                                                                                                                                                                                                                                   standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                      CGGTAAAG
                                                                                                                                                                                                                                                                                                                                                                                                         ATTTAATATGCGTTGTTCGTCGGGAGGCGTTTGGTTGGCGTTGGTCGCGTCGTTTTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCAACATGCGCTGCCCGGGAGGCGTCTGGCTGGCGCTGGCCGCGTCGCTCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAGGCGTAGGTTCGGGCGATAGTCGAGACGTGGAGCGCGTCGGTTCGTTGTAGTTTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCGCGCGTTCGGTTTTTTAAAGGCGCGCGAGTCGAGCGGCGAGGTGTTTTTGTGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGCGCGCGCCCCCTTAAAGGCGCGCGAGCCGAGCGGCGAGGTGCCTCTGTGGCCG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                         2001WO-EP10074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 57
                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                             453
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 298.4; I
Pred. No. 1.1e-
0; Mismatches
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                                                                                                                                                                                                  cytosine methylation
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No. 1.1e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0 other;
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methylation of a particular cytosine in a motif 5'-CpG-3', present in a cytosine (C) provided to the sample is treated chemically to convert cytosine (C) but not methylated C, to uracil, then part of the genomic CC DNA that contains the target C is amplified to form a labeled amplicon. The amplicon is hybridised to two classes, each with at least one commender, of oligomucleotides and/or peptide-nucleic acid (PNA) oligomers and the degree of hybridisation to both classes is determined from the CC label on the amplicon. From the ratio of labels hybridised to the two classes of oligomers, the degree of methylation is calculated. The method is used: (1) for diagnosis and/or prognosis of side effects of therapeutic drugs and of a wide range of diseases, e.g. cancer, disorders of the central nervous, cardiovascular, gastrointestinal and respiratory cystems etc., particularly by detecting mutations or single nucleotide types and for investigating cell differentiation. The method allows the cethylation status of many C residues to be determined simultaneously:

CC ABQ13410-ABQ54121 represent genomic DNA sequences used to illustrate the cemethod for determining the degree of cytosine methylation described in the disclosure of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Determining the degree of cytosine methylation in genomic DNA, for diagnosis and prognosis, comprises selective hybridization amplicons from chemically treated DNA.
  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                This invention describes a novel method methylation of a particular cytosine in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-SEP-2000; 2000DE-1044543
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556 BP; 187 A; 241 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              + Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berlin
71 G;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56pp;
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    57
    T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                  for determining a motif 5'-CpG-3
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', present
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Query Match Best Local S Matches 347 436 496 326 316 376 146 556 266 206 al Similarity 347; Conserv 86 26 GGCCTTGGGCAGCCCCTGGCCAGAGGCGCGAGAGGCCCGAGAGAGCCCGCTCGGTGGAGA GGTTGTÄGTTTTTTGGGTGGTCGTCGÄGÄCGTTGGTTCGGGTTGGÄGGGATGGGGGGGG CTGGGGGTGGAGGTGCCCGGAGCGTACCCAGCGCGGGAGTACCTCCCGCTCACACCTCG CAGGCGCAGGCCCGGGCGACAGCCGAGACGTGGAGCGCCGCCGCCTCGCTGCAGCTCCGGG ĠĠĠĊĠĊĠĊĠŦŦĊĠĠŦŤŦŢŤŢŊŊŊĠĠĊĠĊĠĊĠŊĠŦĊĠŊĠĊĠĠĊĠŊĠĠŢĠŢŢŢŢŢĠŢĠĠŢĊĠ GGGCGCGCCCCGGCTTCTAAAGGCGCGCGAGCCGAGCGGCGAGGTGCCTCTGTGGCCG TTGGGGGTGGAGGTGTTCGGAGCGTATTTAGCGTCGGGAGTATTTTTCGTTTATATTTCG Conservative 65.3%; 0, Pred. No. 1.1e 0; Mismatches 81; Indels <u>,,</u> Gaps 145 385 317 265 377 205 437 497 257 0

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Score

298.4; DB 2 No. 1.1e-41;

DB 24;

Length

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> 386 256

> > TAGGCGTAGGTTCGGGCGATAGTCGAGACGTGGAGCGCGTCGGTTCGTTGTAGTTTCGGG

445 197

137

ATTTAATATGCGTTGTTCGTCGGGAGGCGTTTGGTTGGCGTTGGTCGCGTCGTTTTTGTA

136 446 196

CGGTAAAG CGGTAAAG

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RESULT 3.
ABL34018
ID ABL3
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                                                                                                                                         Query Match
Best Local S
Matches 369
                                                                                                                                                                                                                  The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, ADDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                           Nucleic acid comprising fragment of chemically modified for diagnosis and treatment of diseases associated with cytosine methylation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JUN-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia;
acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-JAN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neurofibromatosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neuroprotective; anti-HIV; anticonvulsant; ophthalmological;
antirheumatic; antiarthritic; antidiabetic; antipsoriatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antiarteriosclerotic;
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                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EPIGENOMICS
GGGAGTACCTCCCGCTCACACCTCGGGCTGCAGTTCCCTGGGTGGCCGCCGAGACGCTGG
                            AGGTCGAGAGTTCGTTCGGTGGAGATTGGGGGGTGGAGGTGTTCGGAGCGTATTTAGCGTC
                                                AGGCCGAGAGCCCGCTCGGTGGAGACTGGGGGGTGGAGGTGCCCGGAGCGTACCCAGCGCCC
                                                                                 AGAACGTAAGGGAGAGGTAGAGTTTGGTTTTGGGTAGTTTTTGGTTTAGAGGCGCG
                                                                                                          AGAACGCAAGGGAGAGGTAGAGCCTGGCCTTGGGCAGAGGCCGCG
                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 1991; 32pp +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGCCGGCTCGCTGCAGCTCCGGGACTCAAC 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCGCCGGCTCGCTGCAGCTCCGGGACTCAAC 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCGGCGAGGTGCCTCTGTGGCCGCAGGCGCAGGCCCGGCGACAGCCGAGACGTGGAG
                                                                                                                                        69.7%;
llarity 81.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000DE-1032529.
2000DE-1043826.
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                                                                                                                                                                                             BP; 1480 A; 152 C; 1219 G;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ĄG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disease; cytosine methylation;
antianaemic; cytostatic; noot;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Berlin
                                                                                                                                      Score 318.6;
Pred. No. 3.2e
0; Mismatches
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ches 84;
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abnormal
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                This invention describes a novel method for determining the degree of methylation of a particular cytosine in a motif 5'-CpG-3', present in a genomic sample of DNA. The sample is treated chemically to convert cytosine (C) but not methylated C, to uracil, then part of the genomic DNA that contains the target C is amplified to form a labeled amplicon. The amplicon is hybridised to two classes, each with at least one member, of oligonucleotides and/or peptide-nucleic acid (PNA) oligomers and the degree of hybridisation to both classes is determined from the label on the amplicon. From the ratio of labels hybridised to the two classes of oligomers, the degree of methylation is calculated. The meth
                                                                                                                                                                                                                                                                                                                                                          Determining the degree of cytosine methylation in for diagnosis and prognosis, comprises selective hamplicons from chemically treated DNA
                                                                                                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-SEP-2000;
05-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           drug; side effect; cancer; central net
gastrointestinal; respiratory system;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-371829/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-SEP-2001; 2001WO-EP10074
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; cytosine methylation; 5'-CpG-3'; uracil; cytosine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABQ47036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABQ47036 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Piepenbrock C,
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                                                                                                                                                                                                                                                                                                            56pp + Sequence Listing; 56pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000DE-1043826.
2000DE-1044543.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA;
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              Human alpha-7 nicotinic receptor nucleotide sequence fragment
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Pred. No. 3.5e-68;
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100.0%; Pred. No. 2.6e-57;
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457
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2: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

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SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1986.DAT:*
                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                             /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1996.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1997.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1998.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                          slust/gcgdata/geneseq/geneseqn-emb1/NA1993.DAT:*
SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1994.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1992.DAT:
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SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1990.DAT:*
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    AAX56144
AAX56151
ABL34018
ABQ47036
ABQ47037
ABL34019
ABQ47034
ABQ47035
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Oligonucleotide fo
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                Freedman R,
                                                                                           23-OCT-1997;
                                                                                                                                                        29-APR-1999.
                                                                                                                                                                                      WO9920757-A2
                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                            15-JUL-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                           AAX56144;
                                           (FREE/) FREEDMAN R. (LEON/) LEONARD S.
                                                                                                                                                                                                                                                                                                                                             Human alpha-7 nicotinic receptor nucleotide sequence fragment #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX56144 standard; DNA; 457 BP.
                                                                                                                        15-OCT-1998;
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              Leonard
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ABQ40801	ABQ4:0800	ABQ19227	ABQ19226	AAI84343	ABQ40859	ABQ40858	AAQ23296	AAA38185	ABZ20967	ABK32842	ABL67924	AAX83426	ABQ24355	ABQ24354	ABZ11298	AAD25519	AAD25519	ABL65219	ABL64982	ABN97455	AAX02974	ABK98592	ABK98631	AAX53491	AAZ17263	AAD08215	AAA02477	AAA02484	ABQ52497	ABQ52496	AAX53491	AAQ51543	ABS54875	ABV73248	AAT48239	AAV12197
ligonucleot	igonucleotide	ge.	ä	Į.	e de	ge.	_	2	test]	DNA encoding human	ncer	Genomic region con	Oligonucleotide fo	Oligonucleotide fo	Human polynucleoti	Huma	Human herpesvirus	cancer re	cancer relat	#3953 used t	IL-1ra E	Vector pEPEF1 cont	Vector pEPEF14 con	Human adenosine Al	Human gene express	Human genome from	Human colon cancer	Human colon cancer	Oligonucleotide fo	Oligonucleotide fo	adenosine	polysacchar	neuronal	rona	nal nicoti	Human neuronal nic

ALIGNMENTS

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Human; alpha-7 nicotinic receptor; neuronal; hybridisation; probe; alpha-7 neuronal nicotinic acetylcholine receptor; schizophrenia; small cell lung carcinoma; breast cancer; nicotine-dependent illness; epilepsy; juvenile myoclonic epilepsy; Prader-Willi syndrome; Angelman's syndrome; PCR primer; ss.
                                                                                                                                                                                           97US-0956518.
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Result No.

FEATURE:
FEATURE:
ROADE/KEY: modified_base
LOCATION: (818)
OTHER INFORMATION: a, t, c
FEATURE:
NAME/KEY: modified_base
LOCATION: (843) NAME/KEY: modified base LOCATION: (1082). (1084) OTHER INFORMATION: a, t, FEATURE: modified base LOCATION: (1105). (1107) OTHER INFORMATION: a, t, FEATURE: FEATURE: modified_base LOCATION: (995)
OTHER INFORMATION: a, t, c FEATURE: MAME/KEY: modified_base LOCATION: (1066)...[1067)
OTHER INFORMATION: a, t, c FEATURE: FEATURE: FEATURE:
NAME/KEY: modified_base
LOCATION: (892)
OTHER INFORMATION: a, t, FEATURE:
NAME/KEY: modified base
LOCATION: (754)..(756)
OTHER INFORMATION: a, t, (FEATURE:
NAME/KEY: modified_base
LOCATION: (897)
OTHER INFORMATION: a, t, FEATURE:
NAME/KEY: modified_base
LOCATION: (1130)
OTHER INFORMATION: a, t, PEATURE:
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AME/KEY: modified_base
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THER INFORMATION: a, t, AME/KEY: modified_base OCATION: (750) THER INFORMATION: a, t, COCATION: (745)..(747)
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ME/KEY: modified_base

YTTION: (993) CATION: (843)
THER INFORMATION: a, t, CATION: (763)
THER INFORMATION: a, t, CATION: (761)
THER INFORMATION: a, t, AME/KEY: modified_base CATION: (993) HER INFORMATION: a, t, ME/KEY: modified_base CATION: (941) HER INFORMATION: a, t, ME/KEY: modified_base)CATION: (920) THER INFORMATION: a, t, ME/KEY: modified_base ņ ó ņ ú ō ņ 'n ú Ó ů, ũ ō ú ņ ņ ú ņ ú ĺ ğ á á á á á ģ 'n ú á á á g, unknown or other unknown unknown unknown or other or other or other

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Sequence 11, Application US/10349836 Publication No. US20030138911A1
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Best Local Similarity
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APPLICANT: Elliott, Kathryn J.
Harpold, Michael M.
TITLE OF INVENTION: HUMAN MEDURONAL NICOTINIC ACETYLCHOLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-349-836-11
                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 11: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/349,836

FILING DATE: 23-Jan-2003

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/08/660,451A

FILING DATE: June 7, 1996

APPLICATION NUMBER: 08/484,722

FILING DATE: 07-Jun-95

ATTORNEY/AGENT INFORMATION:

NAME: Scidate Carbacio I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 92101-2926
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Brown, Martin, Haller & McClain
STREET: 1660 Union Street
                                                                                                                                            HYPOTHETICAL: NO
                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: Genomic DNA
                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: 619-238-0999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                          ORIGINAL SOURCE:
                                                                                                                              ANTI-SENSE: NO
                                                                                                         FRAGMENT TYPE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   441
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                NAME/KEY: 5'UTR
LOCATION: 73...1581
OTHER INFORMATION: 7
                                                                                                                                                                                                                                                                                                                                                            NAME: Seidman, Stephanie L
REGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCACG 447
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OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
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                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                       FELEX: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: San Diego
                                                                                                                                                                                                                                  ENGTH: 1876 base pairs
                                                                                                                                                                                                                                                                                                        ELEFAX: 619-238-0062
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RECEPTOR COMPOSITIONS AND METHODS EMPLOYING SAME
                  alpha7 human neuronal nicotinic
                                                                                                                                                                                                                                                                                                                                                              6362-9370B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
NAME/KEY: modified_base
                                                                                                                                                                                             OCATION:
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SEQUENCE DESCRIPTION: SEQ ID NO: 11: US-10-349-836-11
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Best Local Similarity
Matches 127; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: 084335/0152
CURRENT APPLICATION NUMBER: US/10/017,161
CURRENT FILING DATE: 2002-12-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: JP 2001/246789 PRIOR FILING DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: ABURATANI, HIROYUKI
TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: SUWA, MAKIKO
APPLICANT: ASAI, KIYOSI
NAME/KEY: modified_base
LOCATION: (739)..(743)
OTHER_INFORMATION: a, t,
                                                               NAME/KEY: modified base LOCATION: (709)..(736)
                                                                                                                                                                                                                                                           NAME/KEY: modified base LOCATION: (658)..(669) OTHER INFORMATION: a, t,
                                                                                                                               OTHER INFORMATION: a, t,
                                                                                                                                                 NAME/KEY: modified_base LOCATION: (704)..(707)
                                                                                                                                                                                              OTHER INFORMATION: a, t,
                                                                                                                                                                                                               NAME/KEY: modified_base LOCATION: (671)..697)
                                                                                                                                                                                                                                                                                                                                           NAME/KEY: modified_base LOCATION: (556)..(655)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: CDS
NOCATION: (201)..(2963)
                                                                                                                                                                                                                                                                                                                                                                                                                                  JAME/KEY: source
JOCATION: (1)..(3163)
                                                                                                                                                                                                                                                                                                                    INFORMATION: a, t,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 CTGCACG 127
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AKIYAMA, YUTAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/10017161
b. US20030143668A1
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Pred. No. 1.8e-19;
      unknown or other
                                                                                                                                                                                                unknown
                                                                                                                                                                                                                                                                unknown
                                                                                                                                                                                                                                                                                                                              unknown
                                                                                                                                  unknown
                                                                    unknown
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Oy 181 CCCGGGCTGGAGGGATGGCGGGGGGGGGGGGGGGGGGGG	Qy 121 GGGAGTACCTCCCGCTCACACCTCGGGCTGCAGTTCCCTGGGTGGCCGCCGAGACGCTGG 180	Qy 61 AGGCCGAGAGCCCGCTCGGTGGAGACTGGGGGTGGAGGTGCCCGGAGCGTACCCAGCGGC 120	Oy 1 AGAACGCAAGGGAGAGGCTAGAGCCTTGGGCAGCCCCTGGCCTGGCCAGAGGCGCG 60	Query Match 48.5%; Score 221.8; DB 12; Length 5304; Best Local Similarity 67.8%; Pred. No. 3.5e-40; Matches 310; Conservative 0; Mismatches 147; Indels 0; Gaps 0;	; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-311-455-1992	TYPE: DNA TYPE: DNA ORGANISM: Artificial Sequence	NUMBER OF SEQ ID NOS: 2424 SEQ ID NO 1992 TENCTURE 2324	; PRIOR FILING DATE: 2000-06-30; PRIOR APPLICATION NUMBER: DE 10043826.1; PRIOR FILING DATE: 2000-09-01	PRIOR FILING DATE: 2001-07-02 PRIOR APPLICATION NUMBER: DE 10032529.7	; CURRENT APPLICATION NUMBER: US/10/311,455 ; CURRENT FILING DATE: 2002-12-16 · PRIOR APPLICATION NUMBER: US/10/311,455	ne methylation	2	0	⊅ N	PEGIT 7	TGGCGTTGGTCGCGTCGTTTTTGTACGGTAAAG	421 TGGCGCTGGCCGCTCCTGCACGGTAAAG 453	QY 361 CGCGCCGGCTGCAGCTCCAGGACTCAACATGCGCTGCTCGGGAGGCGTCTGGC 420	Qy 301 GAGCGGCGAGGTGCCTCTGTGGCCGCAGGCGCAGGCCGGGGGACAGCCGAGACGTGGAG 360	Oy 241 AGGCGCGGGGGGGGGGGGGGGGGGGGGCGCGCCCCGGCTCCTTAAAGGCGCGCGAGCC 300	Qy . 181 CCCGGGCTGGAGGATGGCGGGGGGGGGGGGGGGGGGGGG	Qy 121 GGGAGTACCTCCCGCTCACACCTCGGGCTGCAGTTCCCTGGGTGGCCGCGAGACGCTGG 180
; ; SEQUENCE DESCRIPTION: SEQ ID NO: 7: US-09-892-985-7	TOPOLOGY: both MOLECULE TYPE: CDNA FEATURE: NAME/KEY: CDS	SEQUENCE CHARACTERISTICS: LENGTH: 1876 base pairs TYPE: nucleic acid STRANDEDNESS: both	TELEPHONE: 619-450-8400 ; TELEPAX: 619-587-5360 ; TELEX: <unknown> ; TELEX: <unknown> ; TELEX: <unknown></unknown></unknown></unknown>	NAME: Seidman, Stephanie L REGISTRATION NUMBER: 33,779 REFERENCE/DOCKET NUMBER: 24735-9949B RETERENCE/TON INFORMATION:	APPLICATION NUMBER: US 08/028,031 ; FILING DATE: 08-MAR-93 ; FILING DATE: 08-MAR-93	FILING DATE: 05-JUN-95 FILING DATE: 05-JUN-95 APPLICATION NUMBER: US 08/466,589,	APPLICATION NUMBER: US/09/217,345 FILING DATE: 21-DEC-98 ADDITIONATION NUMBER: US 08/467 574	; APPLICATION NUMBER: US/09/892,985 ; FILING DATE: 27-Jun-2001 ; PRIOR APPLICATION DATA: **	SOFTWARE: FASTSEQ Version 1.5 CURRENT APPLICATION DATA:	; MEDIUM TYPE: Diskette ; COMPUTER: IBM COmpatible : OPERATING SYSTEM: DOS		STATE: CA	; CORRESPONDENCE ADDRESS: ; ADDRESSEE: Heller Ehrman White & McAuliffe ; STREET: 4250 Executive Square, 7th Floor	RECEPTOR COMPOSITIONS ANUMBER OF SEQUENCES: 12	HARDOID, MICHAEL M. HIVAN METRONAL NICOTINIC ACETYLCHOLINE	RAL INFORM	; Sequence 7, Application US/09892985 ; Patent No. US20020111463A1	RESULT 3 US-09-892-985-7	Oy 421 TGGCGCTGGCCGCTCCCTGCACGGTAAAGCCAC 457	Oy 361 CGCGCCGGCTCGCTGCAGCTCCGGGACTCAACATGCGCTGCTCGCCGGGAGGCGTCTGGC 420	Qy 301 GAGCGGCGAGGTGCCTCTGTGGCCGCAGGCCGAGGCCCGGGCGACGACGTGGAG 360	QY 241 AGGCGCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG

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m2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
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(c) 1993 - 2003
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US-10-017-632-31508
US-10-027-632-31508
US-10-032-393-8
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Sequence 1, Appli Sequence 179, App	e L	18	equence 18	equence 4358	e 10,		Sequence 10; Appl	10	æ	2, Apr	335	50	e 50,	(D LTI	45	45, Ac	45, Ap	e 216	e 1647,	e 306160,	e 9625	e 1435, A	48,	00	48,	equence 14	Sequence 87, App

ALIGNMENTS

RESULT 1 US-10-311-455-1991

GENERAL INFORMATION:

Sequence 1991, Application US/10311455 Publication No. US20030143606A1

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US-10-311-455-1991
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SEQ ID NO 1991
LENGTH: 5304
                                                                                                                                                                   Matches 369;
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TITLE OF INVENTION: Cytosia methylation
FILE REFERENCE: 5013.1014
CURRENT APPLICATION NUMBER: US/10/311,455
CURRENT FILING DATE: 2002-12-16
                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: DE 10032529.7
PRIOR FILING DATE: 2000-66-30
PRIOR APPLICATION NUMBER: DE 10043826.1
PRIOR FILING DATE: 2000-09-01
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PRIOR APPLICATION NUMBER: PCT/EP01/07537
PRIOR FILING DATE: 2001-07-02
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                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                    Local Similarity
                                        61
                                                                                                            AGAACGTAAGGGAGAGGTAGAGTTTGGTTTTGGGTAGTTTTTGGTTTAGAGGCGCG
AGGTCGAGAGTTCGTTCGGAGGAGATTGGGGGGTGGAGGTGTTCGGAGCGTATTTAGCGTC
                                    AGGCCGAGAGCCCGCTCGGTGGAGACTGGGGGGTGGAGGTGCCCGGAGCGTACCCAGCGCC
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BERLIN, Kurt
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Pred. No. 3.4e-61;
0; Mismatches 84;
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                                                                  AL284678.1 GI:8023072
GSS; genome survey sequence
Tetraodon nigroviridis
       Tetraodon nigroviridis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Tetraodon.
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/strain="Red Jungle Fowl"
/db xref="taxon:9031"
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This sequence is a single read and was generated as scale clone-end sequencing project of the Tetraodon genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
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Bukaryota, Metazoa, Chordata, Mammalla, Eutheria, Primates, 1 (bases 1 to 1103)
Li,W.B., Gruber,C., Jessee,J. Full-length cDNA libraries and
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NIH-MGC http://mgc.nci.nih.gov/.
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           submissions@watson.wustl.edu
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Archosauria; Aves; Neognathae; Ga
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Genome Sequencing Center
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BP 191 91006 EVRY cedex - France
Email: segref@genoscope.cns.fr Web : "www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact : Feng Liang Email : fliang@lifetech.com |
http://fulllength.invitrogen.com/.InVitroGen.Corporation 1600
Faraday Avenue Genoscope sequence ID : CLOBA007ZH12FP1.
Location/Qualifiers
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/tissue type="PLACENTA"
/clone_Tib="Homo sapiens PLACENTA"
/clone_Tib="Homo sapiens PLACENTA"
/note="Vector: pCWVSPORT 6; 1st strand cDNA was primed
/note="Vector: pCWVSPORT 6; 1st strand cDNA was primed
double-strand cDNA was digested with Not I and cloned i
the Not I and EcoRV sites of the pCMVSPORT 6 vector.
Library was not normalized."

34 c 310 g 269 t 296 others
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/db_xref="taxon:9606"
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/mol_type="mRNA"
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Pred. No. 9.7e-06;
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CH261-138F22,
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                                                                                                                Pan troglodytes DNA, clone: AG128304
AG128304.1 GI:16657469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cgi-bin/cluster.cgi?seq=CSODD007CH03QP1&cluster=7646.r. Contact
Feng Liang Email : fllang@llfetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODD007CH03QP1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr was normalized. Library was constructed by Life Technologies, a was normalized. This seguence belongs to seguence cluster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Li,W B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished On Feb 13, 2001 this sequence version replace
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 Fujiyama,A.,
                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
                                                                                                                                                                AG128304
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BP 191 91006 EVRY cedex - France
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                               Pan troglodytes (chimpanzee)
Pan troglodytes
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 Hattori, M., Toyoda, A.,
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95.0%;
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Pred. No. 2.8e-06;
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A COT 50-NORMALIZED
Taylor, T.D., Yada, T.,
                                                                                                                                            linear GSS 04-NOV-2001 genomic survey sequence.
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Query Match
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Clones are derived from the chimpanzee BAC library PTB This BAC end was generated during the R&D process and may have higher chance of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fujiyama,A., Hattori,M., Toyoda,A., Totoki,Y., Watanabe,H. and Sakaki,Y. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone tracking errors.
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LIBRARY
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                                                                         GGTGCCTCTGTGGCCGCAGGCGCAGGCCCGGGCGACAGCCGAGACGTGGAGCGCGCCGGC 369
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/clone_lib="PTB Chimpanzee Male
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/clone="PTB-139G20.R"
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/mol_type="genomic DNA"
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Pred. No. 5.2e-06;
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Library was constructed by Life Technologies, a division of
Invitrogen. Contact: Feng Liang Email: fliang@lifetsch.com URL
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSOCAPO04BE10QP1.
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1 (Dases 1 to 982)
Li,W.B., Gruber C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
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/mol type="mRNA"
/db xref="taxon:9606"
/clone="CS9CAP004YI20"
/tissuttype="THYMUS"
/tissuttype="THYMUS"
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/note="Vector: pCMVSPORT 6; 1st strand cDNA was primed /note="Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was not normalized."

257 c 323 g 18 t 207 others
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Determination of this BAC-end sequence was carried out as part of collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk - This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (23-JUL-1999) Genoscope - Centre BP 191 91006 EVRY cedex - FRANCE (E-mail :
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Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila
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BACNISE10 of DrosBAC library from
fly), genomic survey sequence.
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/db_xref="taxon:7227"
/clone="BACN15E10"
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/plasmid="pBeloBAC11"
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38.1%; Pred. No. 2e-06;
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Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 7646.r
more information about this cluster, see
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BP 191 91006 EVRY cedex - France
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BX365176.1
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Feng Liang Email : fliang@lifetech.com URL :
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                                          clone CS0DI058YA02 5-PRIME, mRNA sequence.
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Location/Qualifiers
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Pred. No. 2.9e-07;
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5-PRIME,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cgi-bin/cluster.cgi?seq=CS1AI015ZC02QP1&cluster=4244.f. Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID : CS1AI015ZC02QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Primates; Catarrhini; Hor

(bases 1 to 1201)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length cDNA libraries and normalization
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Email: segref@genoscope.cns.fr, \
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Homo sapiens THYMUS
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/Clone=Type="PLACENTA COT 25-NORMALIZED"
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/mol_type="mRNA"
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Technologies, a division o:
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AGENCOURT_6860390 NIH_MGC_47 Homo sapiens cDNA clone IMAGE:5922336
5', mRNA sequence.
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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Plate: LLCM2089 row: b column: 01
High quality sequence stop: 142.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
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                      /clone="IVAGE:592236"
/clone="IVAGE:592236"
/lab host="BH10B (phage-resistant)"
/clone lib="NHIMB (phage-resistant)"
/clone lib="NHIMB (phage-resistant)"
/clone lib="NHIM MGC 47"
/clone lib="NHIM MGC 47"
/note="Organ: brain; Vector: pOTB7; Site_1: XhoI; Site_2:
/note="Organ: brain; Vector: poTB7; Site_1: XhoI; Site_2:
/note="Organ: brain; Vector: poTB7; Site_1: XhoI; Site_2:
/cloned into EccRI/XhoI sites using the following Site of Site o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  through the I.M.A.G.E. Consortium/LLNL at:
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1 kb for average insert length 1.9 kb. This is a primary library, non-amplified. Library constructed by Life Technologies and donated by J. Lupski, M.D./Ph.D. (Baylc College of Medicine); available through Life
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Homo sapiens"
mol_type="mRNA"
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Pred. No. 5e-12;
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Best Local Similarity
Matches 118; Conserv
                                                                                                                                                Matches 123,
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                                    362 GCGCCGGCTCGCTGCAGCTCCGGGACTCAACATGCGCTGCTCGCCGGGAGGCGTCTGGCT
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Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
                                                                                                                                                                                                                                                                                                                                                                                                                                                Faraday Avenue Genoscope sequence ID : CSIDC001ZG09QP1.

Location/Qualifiers

1 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cgi-bin/cluster.cgi?seq=CS1DC001ZG09QP1&cluster=7646.r. Contact Feng Liang Email ; fliang@lifetech.com URL ; http://fulllength.invitrogen.com/ InVitrogen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 7646.r
more information about this cluster, see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Li, W.B., Gruber, C., Jessee
Full-length cDNA libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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BX403124 Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human);
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                                                                                                          AGCGGCGAGGTGCCTCTGTGGCCGCAGGCGCAAGGCCGGGCGACAGCCGAGACGTGGAGC
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                                                                                                                                                                                                                                   /tissue_type="NEUROBLASTOMA COT 25-NORMALIZED"
/clone_Tib="Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
3 298 c 288 g 218 t 17 others
                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODC004YA12"
                                                                                                                                                              22.3%;
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94.4%;
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Pred. No. 2.7e-10;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BQ894356 1084 bp mRNA linear I
AGENCOURT_8725920 NIH_MGC_47 Homo sapiens cDNA clone
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                                                                                                                found through the I.M.A.G.E. Consor
http://image.llnl.gov
Plate: LLCM2532 row: g column: 11
High quality sequence stop: 482.
Location/Qualifiers
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NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OMO
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BQ894356
                                                                                                                                                                                             CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LINL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                           Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota;
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/clone lib="NIH MGC 47"
/clone lib="NIH MGC 47"
/note="Organ: brain; Vector: pOTB7; Site_1: XhoI; Site_2: /note="Corgan: brain; Vector: poTB7; Site_1: XhoI; Site_2: /conIt cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5 adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                       Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="neuroblastoma, cell line"
/lab host="DH10B (phage-resistant)"
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                                     db_xref="taxon:9606"
                                                                           organism="Homo sapiens"
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tissue_type="neuroblastoma,
                clone="IMAGE: 6338722"
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Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                             Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. James R. Lupski
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution informat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                       High quality sequence stop:
                                                                                                                                                                                                                                                                                                                           found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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                                                                                                                                                                                                                                                                                                           Plate: LLAM13593 row: o column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
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/clone_lib="Lupski_sympathetic_trunk"
/note="Vector: pCMV-SPORT6 (Life Technologies); Site_1:
Not1; Site_2: Sal1; cDNA made by oligo-dT priming.
Directionally cloned using the following adaptors:
5'-TCGACCCACGCGTCCG-3' and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_47"
/note="Organ: brain; Vector: pOTB7;
                                                                                            /dev_stage="adult, 16 yr"
/lab_host="DH10B"
                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                tissue_type="sympathetic trunk"
                                                                                                                                                    sex="male"
                                                                                                                                                                        clone="IMAGE:6192234"
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Pred. No. 6.9e-13;
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Maximum Match 100%
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Maximum DB seq length: 2000000000
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                                                                                Score
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Match Length DB
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ALIGNMENTS

REFERENCE AUTHORS TITLE ACCESSION VERSION KEYWORDS RESULT 1 BU148759 COMMENT DEFINITION Snoor ORGANISM Email: cgapbs-r@mail.nih.gov

Tissue Procurement: ATCC

cDNA Library Preparation: Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLCM2561 row: d column: 18

High quality sequence start: 54 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1125)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished 1125 bp mRNA linear EST 03-SEP-2002 AGENCOURT_8695252 NIH_MGC_47 Homo sapiens cDNA clone IMAGE:6377441 5', mRNA sequence. Homo sapiens BU148759 Contact: Robert Strausberg, Ph.D. BU148759.1 GI:22662291 Homo sapiens (human)

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Search completed: September 7, 2003, 14:36:43 Job time : 2504 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
ORIGIN
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This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 21536283.

Location/Qualifiers
                                                                                                                                                                                                                                                      CGTGGAGCGCGCCGGCTGCAGCTCCGGGACTCAACATGCGCTGCTCGCCGGGAGGC 60
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/db_xref="taxon:9606"
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/tissue_type="Brain, fetal, whole pooled"
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/lab_host="DH10B"
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/db_xref="GI:22902223"
/translation="MOGBADISGYIPNGEWDLVGIPGKRSERFYECCKEPYPDVTFTVT
/translation="MOGBADISGYIPNGEWDLVGIPGKRSERFYECCKEPYPDVTFTVT
MRRRTLYYGLNLLIPCVLISALALLVFLLPADSGEKISLGITVLLSLTVFMLLVAEIM
PATSDSVPLIAQYFASTWIIVCLSVVTVIVIU.QYHHIDPDGGKMPKWTRVILLNWCAW
FLRMKRPGEDKVRPACQHKQRRCSLASVEMSAVAPPASNGNLYJIGFRGLDGYHCVP
TPDGGVVCGRMACSFTHDEHLLHGGQPEGDPDLAKTLEEUYYIANRFRCQDESEAVC
SEWKFAACVVDRLCLMAFSVFTIICTIGILMSAPNFVEAVSKDFA"

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/mol_type="mRNA"
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Mol. Pharmacol. 45 (3), 546-554 (1994)
                                                                                                                                                                                                                            Medicine, Dept of Neuroscience,
Stemmler Hall, Philadelphia, PA
Location/Qualifiers
                                                                                                                                                                                                                                                             Submitted (04-FEB-1993) M. Katz, Univ of Pennsylvania Medicine, Dept of Neuroscience, 36th & Hamilton Walk,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  neuronal nicotinic acetylcholine receptor alpha-7 subunit
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                                            'tissue type="brain.
/clone_Tib="lambda zap II"
                                                                                                                                    /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="SHSY3"
product="neuronal nicotinic acetylocholine receptor"
                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:496606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73.
139.
                                                                        cell_type="neuroblastoma"
tissue_type="brain"
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1582. .1876
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                                                                                                                _line="SHSY-5Y"
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mat_peptide
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Contact: nisc_mgc@hlgri.nih.gov
Akhter,N., Ayele,K., Beckstrom-Sternberg,S.M., Benjamin,B.,
Blakesley,R.W., Bouffard,G.G., Breen,K., Brinkley,C., Brooks,S.,
Dietrich,N.L., Granite,S., Guan,X., Gupta,J., Haghighi,P.,
Hansen,N., Ho,S.-L., Karlins,E., Kwong,P., Laric,P., Legaspi,R.,
Maduro,Q.L., Masiellb,C., Maskeri,B., Mastrian,S.D.,McCloskey,J.(
McDowell,J., Pearson,R., Stantripop,S., Thomas,P.J., Touchman,J.I
Tsurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L.,
Young,A., Zhang,L.-H. and Green,E.D.
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                                                                                                                                                                                                      NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramux
Sequencing Center (NISC),
Gaithersburg, Maryland;
Web site: http://www.nisc.nih.gov/
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (13-SEP-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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176. .1609
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/db_xref="GI:496607"
/db_xref="SWISS-PROT:P36544"
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                                                  McCloskey, J.C.,
Touchman, J.W.,
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Sequence 11 from patent US 65
AR282833
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Elliott,K.J. and Harpold,M.M.
HUMMAN neuronal nicotinic acetylcholine receptor compositions methods employing same Patent: US 6524789-A 11 25-FEB-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown
                                                                                                                                            methods employing same Patent: EP 1295945-A 11 26-MAR-2003; MERCK & CO. INC. (US)
                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                             organism="Homo sapiens"
|mol_type="genomic DNA"
                                                                                                                              Location/Qualifiers
/protein_id="CAD88995.1"
/db_xref="GI:29891592"
                                  /codon_start=1
product="alpha7 human neuronal nicotinic
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                                                                                   xref="taxon:9606"
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Elliott, K.J., Ellis, S.B., Berckhan, K.J., Urrutia, A., Chavez.Noriega, L.E., Johnson, E.C., Velicelebi, G. and Harpold, M.M. Comparative structure of human neuronal alpha 2-alpha 7 and beta 2-beta 4 nicotinic acetylcholine receptor subunits and functional expression of the alpha 2, alpha 3, alpha 4, alpha 7, beta 2, and
                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (28-JUN-1996) Kathryn J. Elliott,
Inc., 505 Coast Blvd. So., La Jolla, CA 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 U62436.1 GI:1458119
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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DESEAVCSEWKFAACVVDRLCLMAFSVFTIICTIGILMSAPNFVEAVSKDFA"
                                                                                                                        /db_xref="taxon:9606"
/clone="KEalpha7.3"
/cell_line="IMR32"
/cell_type="neuroblastoma"
/clone_lib="SIBIA lambda gt11 library
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                                      precursor"
                                                                                                                                                                                                                       organism="Homo sapiens"
/mol_type="mRNA"
/protein_id="AAB40114.1"
/db_xref="GI:1458120"
                                                      /codon_start=1
/product="nicotinic acetylcholine
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CA 92037, USA
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Sequence 7 f
AR055255
AR055255.1
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Ellis, S.B. and Harpold, M.M.
Human neuronal nicotinic acetylcholine re
methods employing same
Patent: US 5910582-A 7 08-UN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 1876)
Elliott,K.J., Ellis,S.B. and Harpold,M.M.
Human neuronal nicotinic acetylcholine recep
transformed with same DNA and mRNA encoding
Patent: US 5837489-A 7 17-NOV-1998;
Location/Qualifiers
1. .1876
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Sequence
AR224030
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Elliott,K.J., Ellis,S.B. and Harpold,
Methods for identifying agonists and
nicotinic acetylcholine receptors
Patent: US 6446881-A 11 27-AUG-2002;
Location/Qualifiers
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Sequence
AR173187
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Elliott, K.J., Ellis, S.B. and Harpold, M.
Human neuronal nicotinic acetylcholine
                                                                                                                                                                                                      Unclassified
                                                                                                                                                                                                                        Unknown.
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Patent: US 6303753-A 7 16-OCT-2001;
Location/Qualifiers
1. 1876 "..."
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CTGCACG 127
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patent US 6440681.
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Pred. No. 4.2e-09;
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/mol_type="genomic DNA"
/db_xref="taxon;32630"
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Query Match
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Research Center, 505 NW 185th Ave., Beaverton, OR 97006, USA
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Macaca mulatta nicotinic acetylcholine mRNA, complete cds. AF486623
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Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Macaca mulatta (rhesus monkey
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                                                                                                              GTGGAGCGCCGCCGGGTGCAGCTCCGGGACTCAACATGCGCTGCTCGCCGGGAGGCG 414
                       TCTGGCTGGCGCTGGCCGCTCCTCCTGCACG 447
                                                                                                                                                                                                      CGAGCCGAGGCGAGGTGCCTCTGTGGCCGCAGGCGCAGGCCCGGGGGGACAGCCGAGAC
                                                                                      GTGAGGCGCCGGCCGGCAGCTCCGGGACTCAACATGCGCTGCTCGCAGGGAGGCG
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/product="nicotinic acetylcholine receptor alpha7"
/protein_id="AAO84497.1"
/db_xref="01:29422148"
/translation="MRCSQGGVWLALAASLLHVSLQGEFQRKLYKELVKNYNPLERPV
ANDSQPLTVYFSLSLLQIMDVDEKNQVLTTNIWLQMSWTDHYLQMNVSEYFGVKTVRF
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/mol_type="mRNA"
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                                                                                                                                                                                                                                                                                            Score 133.8; DB 9
Pred. No. 4.5e-10;
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                                                                Query Match
Best Local Sim:
Matches 392;
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JOURNAL
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      μ
                                                                                                                                                                                                                                                                                      Submitted (15-OCT-1997) Psychiatry, University of Colorado Health
Sciences Center, 4200 E. 9th Ave., Denver, CO 80262, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                 Moore, T., Jacobs, S., Meriwether, J., Choi, M., Kim, E.J., Walton, K., Butting, K., Davis, A., Breese, C., Freedman, R. and Leonard, S. Genomic organization and partial duplication of the human alpha7 neuronal nicotinic acetylcholine receptor gene (CHRNA7) 99000837
                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 392)
Leonard, S., Gault, J., Logel, J., Drebing, C., Robinson, M.,
Breese, C., Davis, A., Hopkins, J. and Freedman, R.
Direct Submission
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Homo sapiens alpha 7 neuronal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 392)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF029837.1 GI:3757792
                                                                                  Similarity
 AGAACGCAAGGGAGAGGTAGAGCCTGGCCTTGGCCAGACCCCTGGCCTGGCCAGAGGCGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCGCTGGCCGCGTCCTGCACGGTAAAGCCAC
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                                                                 85.8%; Score 392; DB 9; ilarity 100.0%; Pred. No. 2.8e-46; Conservative 0; Mismatches 0;
                                                                                                                                                51
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/clone="CHRNA7-p"
1. .392:
122 c 180 g 39 t
                                                                                                                                                                                                            /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="15"
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TITTTGGTTGGCCGGAGCGTACCCAGCGCCCCTGGGTGGCCGCGAGACCGTACCCAGCGCCCCTGGGTGGAGCGTGGAGACGTTGGAGACGTTGAAAGGCGCGAGACGTTGAAAGGCGCGAGACGTGAAGGCTCCTTAAAAGGCGCGCGAGACGTGGAGACGTTGAAAGGCGAGACGTGGAGACGTGAAAGCCGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTGGAAGACGTTAGGTTAGGTTAGAGACGCTAGAAGACGTTAGAGACGCTAGAAGACGTTAGAGAAGACGTTAGAGAAGACGTTAGAGAAGACGTTAGAGAAGACGTTAGAGAAGACGTTAGAGAAGACGTTAGAGAAGACGTTAAAAGAGACGCAGAGACGTTAAAAGAGAAGAAGACGCTAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGA	Matches 369 1 1 4609 61 121 121 4729 181 181 241	RESULT 4 AX346920 LOCUS LOCUS DEFINITION SE ACCESSION AV VERSION AV VERSION AV KEYWORDS SOURCE SOURCE SY ORGANISM SI REFERENCE 1 AUTHORS OI TITLE DI JOURNAL PE FEATURES SOURCE SOURCE SOURCE FEATURES SOURCE BASE COUNT ORIGIN ONEY MATCH BASE LOCAL SE BEST LOCAL SE BEST LOCAL SE	61 121 121 181 181 181 241 241 301 361
	Conservative 0; Mismatches 84; Indels 0; Gaps ACCCAAGGGAGAGGTAGAGCCTGGCCTTGGGCAGACGCGCG ACCTAAGGGAGAGGTAGAGCCTGGCCTTGGGCAGACGCGCG ACCTAAGGGAGAGGTAGAGTTTGGTTTTGGGTAGTTTTGGTTTAGAGGCGCG ACCTAAGGGAGAGTAGAGT	linear PAT 01-FEB- ne immune system nic DNA (Homo sapiens)"	CCGAGAGACCCCGCTTCGGTGGAGACTTGGGGGTTGGAGGTTGCCCGGAGAGCGTACCCAGCGCC

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Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Meneus, L., Mihova, T., Mtenga, V., Murphy, T., Naylor, J., Ngyen, C., Nicol, R., Morbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauback, R., Seaman, S., Severy, P., Spencer, B., Scange-Thomann, N., Stojanovic, N., Strause, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Travis, N., Trigillo, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      On May 10, 2002 this sequence version replaced gi:18693427 All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (10-MAY-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Chang, J., Chazaro, B., Chepel, Y., Colangelo, M., Collins, S., Collymore, A., Chazaro, B., Chepel, Y., Colangelo, M., Collins, S., Collymore, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      http://ftp.genome.washington.edu/RM/RepeatMasker.html
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center project name: L10937
Center clone name: 636_P_14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site: http://www-seq.wi.mit.edu
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/clone lib="RPCI-11 Human Male complement (118. .329)
/rpt_family="MER20"
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                                                     _family="MER1B"
                                                                                           _family="L1MC1"
                                                                                                                                    _family="L1MEc"
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                      family="L1MC1"
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                                                                                                                            Query Match 99.6%;
Best Local Similarity 99.8%;
Matches 456; Conservative
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                                                           14796 AGAACGCAAGGGAGAGGTAGAGCCTGGCCTTGGCCACAGAGCCCCTGGCCAGAGGCCGCG 14737
61 AGGCCGAGAGCCCGCTCGGTGGAGACTGGGGGTGGAGGTGCCCGGAGCGTACCCAGCGGC 120
                                                                                   1 AGAACGCAAGGGAGAGGTAGAGCCTGGCCTTGGGCAGCCCCTGGCCTGGCCAGAGGCGCG 60
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complement(25834. .26046)
/rpt_family="""
                                                                                                                                                                                                                    complement (26456. .26763)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (21844
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complement(11708. .11810)
/rpt_family="MIR"
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complement(6716. .6)
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                                                                                                                                                                                                                                                                                                                                                                            complement (24374.
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/rpt_family="L1M4"
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                                                                                                                                   AL Submitted (20-SEP-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA (CE 3 (bases 1 to 227506)

Research, 320 Charles Street, Cambridge, MA 02141, USA (CE 3 (bases 1 to 227506)

CE 3 (bases 1 to 227506)

Biren, B., Linton,L., Nusbaum,C., Lander,E., Ali,A., Allen,N., Anderson,S., Barna,N., Bastien,V., Boguslavkiy,L., Boukhgalter,B., Biren,B., Linton,L., Nusbaum,C., Lander,E., Chang,J., Chazaro,B., Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cook,A., Cooke,P., DeArellano,K., Dewar,K., Diaz,J.S., Dodge,S., Faro,S., Ferreira,P., FitzHugh,W., Gage,D., Galagan,J., Gardyna,S., Ginde,S., Goyette,M., Gaye,D., Galagan,J., Gardyna,S., Ginde,S., Goyette,M., Gaye,D., Galagan,J., Gardyna,S., Hotton,L., Hulne,W., Iliev,I., Johnson,R., Jones,C., Kamat,A., Karatas,A., Kells,C., LaRocque,K., Lamazares,R., Landers,T., Lehoczky,J., Levine,R., Liu,G., Macthews,C., McCarthy,M., McRaman,F., McKernan,K., Meldrim,J., Meneus,L., Mihova,T., McEwan,P., McKernan,K., Meldrim,J., Meneus,L., Mihova,T., Peterson,K., Phunkhang,P., Pierre,N., Pollara,V., Raymond,C., Peterson,K., Phunkhang,P., Pierre,N., Pollara,V., Raymond,C., Rogov,P., Roman,J., Royand, C., Severy,P., Spencer,B., Stange-Thomann,N., Stojanovic,N., Severy,P., Spencer,B., Stange-Thomann,N., Stojanovic,N., Severy,P., Spencer,B., Stange-Thomann,N., Stojanovic,N., Valor, J., Valor, J., Valor, J., Whitted, M., Saloros, M., Trigillo,J., Vassillev,H., Valor, J., Whitted, M., Saloros, M., Saloros, M., Trigillo,J., Vassillev,H., Submission, J., Stompthylon, M., Alley, M., Shange, J., Stange-Thomann,D., Ye,W.J., Young,G., J., Submitted, Mischel Testinte, Mat Cortex for Cortex for Cortex for Charlett Submission.
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                                Submitted (16-FEB-2002) Whitehead Institute/MIT Center Research, 320 Charles Street, Cambridge, MA 02141, USA 4 (bases 1 to 227506)
Birren, B.,
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Birren,B., Linton,L., Nusbaum,C. and Lander,E.
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Nusbaum, C.,

Lander, E.,

Ali,A., Allen,N.

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REFERENCE
AUTHORS
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     Ferreira, K., F., Goyette, M., Granam, J., Ginde, S., Gord, S., Goyette, M., Hulme, W., Iliev, I., Johnson, K., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, R., Liu, G., Lamacares, R., Landers, T., Lehoczky, J., Levine, R., Liu, G., Lamazares, R., Landers, T., Lehoczky, J., Marquis, N., Matthews, C., Macchan, C., Madornald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., McPheeters, R., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Norbu, C., Norman, C. H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Ribback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Royo, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Seriaye, S., Theodore, J., T
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Direct Submission

AL Submitted (19-APR-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

Research, 320 Charles Street, Cambridge, MA 02141, USA

(CB 3 (bases 1 to 203493)

Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bogulavkiy, L., Boukgalter, B., Anderson, S., Barna, N., Bastien, V., Bogulavkiy, L., Boukgalavkiy, L., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Choepel, Y., Colangelo, M., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Korton, L., Hulme, M., Ilev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Landers, T., Lehoczky, J., Levine, R., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., McPheeters, R., Matthews, C., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Raymond, C., Netta, R., Sougnez, C., Spencer, B., Stange, Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Travis, M., Trigillo, J., Voung, G., Zaihoun, J., Zembek, L., Zimmer, A., and Zody, M.

Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (09-AUG-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

4 (bases 1 to 203493)

Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Barna, N., Campopiano, A., Chang, J., Chazaro, B., Chang, J., Colangelo, M., Collins, S., Collymore, A., Cook, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Gond, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagford, B., Grand-Pierre, N., Grand-Pierre, N., Hagford, B., Grand-Pierre, N., Grand-Pierr
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All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
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------ Project Information
Center project name: L8593
Center clone name: 717_I_24
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complement(9171...9286)
/rpt_family="L2"
9644...9007
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complement(740. .909)
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complement(6451. .6762)
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14978. .15055
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/clone_lib="RPCI-11 Human Male BAC"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Homo sapiens"
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Post-processing: Minimum Match 0%
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Gapop 10.0 , Gapext 1.0
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Copyright (c) 1993 - 2003 Compugen Ltd.
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score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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AC100810 Homo sapi	U2321	143286 Macaca	685196 Penici	084799 Mus muscu	020738 Homo s	021793 Homo sap	X324177 Danio re	04786 Oryza sa	35061 Oryza sa	684839 Penicil	684370 Penicill	C013648 Homo sap	C022856 Homo sa	16280 Homo sap	12684 Homo sa	36100 Rattus n	19 Oryza sa	23446 Homo sapi	L685189 Penicil	23212 Homo sap	024266 Homo sapi	684391 Penicil	003518 Oryza sa	24002 Homo sap	021929 Homo sap	120887 Oryza sa	003685 Oryza sat	AL684264 Penicil	C084804 Mus musc	037571 Homo sap	ens	2436 Human nic	088	sequence ocurrence	173187 Seque	071403 Sequenc	055255 Seque	486623 Ma	346921 Sequenc	46920 Sequenc	029837 Homo sa	79969 Homo sap	058803 Homo sap	scription	

ALIGNMENTS

REFERENCE AUTHORS TITLE JOURNAL	ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	Locus	AC058803	
Eukaryo Mammal: 1 (ba: Birren Homo sa Unpubl:	Homo s	Homo s	HIG.	œ	AC0588		AC0588		

Pred. No.

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the number of results predicted by chance to have a

AC058803

AC058803

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AC058803

AC058803.5 GI:17488731

HTG.

Homo sapiens (human)

Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo

1 (bases 1 to 203493)

Birren, B., Linton, L., Nusbaum, C. and Lander, E.

Homo sapiens chromosome 15, clone RP11-717124

Unpublished

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                                                  US-08-660-451A-11
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOPTWARE: FASTSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/660,4
FILING DATE: June 7, 1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMBER: 08/484,722
FILING DATE: 06/07/95
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 1876 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 619-238-0999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 92101-2926
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Elliott, Kathryn J.
APPLICANT: Harpold, Michael M.
TITLE OF INVENTION: HUMAN NEUR
TITLE OF INVENTION: RECEPTOR C
NUMBER OF SEQUENCES: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                 FRAGMENT TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Seidman, Stephanie L
REGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 6362-9370B
                                                                                                                                                          LOCATION: 73...1581
OTHER INFORMATION: alpha7 human neuronal nicotinic OTHER INFORMATION: acetylcholine receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 619-238-0062
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                                                                LOCATION: 1582...
OTHER INFORMATION:
                                                                                                 NAME/KEY:
                                                                                                                 OTHER INFORMATION:
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San Diego
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27.8%; Score 127; DB 4; 100.0%; Pred. No. 1.1e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/08/660,451A
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US-08-318-837-1/c
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                                                                                                                                                                                                                                                          TELEFAX: (212) 661-8002
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: ASCII
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/318,837
FILING DATE: 13-0CT-1994
                                                                                                               ANTI-SENSE: NO ORIGINAL SOURCE: ORGANISM: Hum:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/EP 93/01022
FILING DATE: 28-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 30-APR-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: BIERMAN AND MUSERLIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: FRANSEN, LUCIA; DEVOS, KATHLEEN; VAN DE VOORDE, APPLICANT: ANDRE; VAN HEUVERSWYN, HUGO
TITLE OF INVENTION: NEW POLYPEPTIDES AND PEPTIDES, NUCLEIC TITLE OF INVENTION: CODING FOR THEM, AND THEIR USE IN THE TITLE OF INVENTION: IMMUNOLOGY
                                FEATURE
                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 19, REFERENCE/DOCKET NUMBER:
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SOFTWARE: ASCII
                                                                                                 TISSUE TYPE:
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                 NAME/KEY:
                                                 LOCATION:
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SYSTEM: PC-DOS/MS-DOS
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US-09-217-345-7
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US-09-217-345-7
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Best Local Similarity
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GENERAL II
                                                                                                                                                                                                                                                                  MOLECULE TYPE:
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PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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APPLICANT: I
APPLICANT: I
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MEDIUM TYPE: Diskett
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                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Seidman, Stephanie L
REGISTRATION NUMBER: 33,77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/467,574 FILING DATE: 05-JUN-95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US, FILING DATE: 21-DEC-98
                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
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SOFTWARE: FastSEQ Version 1.5
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441 CTGCACG 447
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                                                                                                                                                                                                                                                                               both
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Pred. No. 1.1e-15;
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                   Query Match
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                                                                                                                                                                                              TELEFAX: 619-238-0062
[NFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                  TELEPHONE: 619-238-0999
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                                                                                                                             NOLECULE TYPE:
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APPLICATION NUMBER:
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CTTY: San Diego
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   Local Similarity
                                                           NAME/KEY: CDS
LOCATION: 73..1581
OTHER INFORMATION:
                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 630; LECOMMUNICATION ....
                                                                                                                                                                                                                                                                                             NAME: Seidman, Steph
REGISTRATION NUMBER:
                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: both
                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
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                                                                                                                                                                                     1876 base pairs
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                           CDNA
                                                                                                                                                                                                                                                                                                                                             03-APR-1990
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08-MAR-1993
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                                                                                                                                                                                                                                                                                                          Stephanie L.
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   100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NICOTINIC ACETYLCHOLINE RECEPTORS
                                                            /product= "ALPHA-7 SUBUNIT"
                                                                                                                                                                                                                                                                                                                                                         US 07/504,455
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Score 127; DB 4; Pred. No. 1.1e-15;
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Best Local (
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Best Local Similarity
Matches 127; Conserv
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE:
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APPLICATION NUMBER: US 0
FILING DATE: 08-MAR-1993
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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APPLICANT: HATPOId, Michael M.
TITLE OF INVENTION: HUMAN NEURONAL NICOTINIC ACETYLCHOLINE
TITLE OF INVENTION: RECEPTOR COMPOSITIONS AND METHODS EMPLOYING SAME
NUMBER OF SEQUENCES: 12
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LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: both
TOPOLOGY: both
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SOFTWARE: Patentin Release #1.0,
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444 South Flower Street, Suite 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1876 base pairs
                                                                                                                    Conservative
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73..1581
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SYSTEM: PC-DOS/MS-DOS
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US-08-467-574-7
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Best Local Similarity 100.
Matches 127; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                     NAME: Seidman, Stephanie L
REGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 63
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619-238-0999
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 0
FILING DATE: March 8, 19
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
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LOCATION:
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CITY: San Diego
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08 FILING DATE: June 5, 1995 CLASSIFICATION: 536
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                                                                                                                                                                                                                                                                                                                  ENGTH:
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Harpold, Michael M.
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Ellis, Steven B.
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                                                                                                                                     Score 127; DB 3; ; Pred. No. 1.1e-15; 0; Mismatches 0;
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| ( 'ggn2_6 / ptodata/2 / ina/6B COMB.seq:*
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Copyright (c) 1993 - 2003 Compugen Ltd...
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US-08-467-574-7
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US-08-660-451A-11
US-08-318-337-1
US-09-165-264-13
US-09-165-264-7
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11.0	11.0	11.1	11.1	11.2	11.3	11.3	11.3	11.3	11.3	11.5	11.5	11.5	11.5	11.6	11.6	11.6	11.6
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US-09-283-471A-37	US-08-483-533-37	US-09-072-596-168	US-09-056-556-173	US-08-308-949A-1	US-09-103-840A-1	PCT-US93-02147A-1	US-09-236-503-1	. US-08-447-642-1	US-08-284-941-1	US-09-103-840A-2	US-08-232-463-14	US-09-428-711A-15	US-08-458-568A-3	US-08-458-568A-11	US-08-843-659-1	US-09-259-821A-1	US-08-690-473-1
Sequence 37, Appl	Sequence 37, Appl	Sequence 168, App	Sequence 173, App	Sequence 1, Appli	Sequence 1, Appli	Sequence 1, Appli	,-	Sequence 1, Appli	Sequence 1, Appli	Sequence 2, Appli	Sequence 14, Appl	Sequence 15, Appl	Sequence 3, Appli	Sequence 11, Appl	Sequence 1, Appli	Sequence 1, Appli	Sequence 1, Appli

ALIGNMENTS

US-08-466-589-7 NAME/KEY: LOCATION: IS-08-466-589-7 Sequence 7 Patent No. APPLICATION NUMBER: US/08/466,589 FILING DATE: June 5, 1995 CLASSIFICATION: 536 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/028,031 FILING DATE: March 8, 1993 ATTORNEY/AGENT INFORMATION: GENERAL INFORMATION: INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 1876 base pairs COMPUTER READABLE FORM: MEDIUM TYPE: Diskette TELEPHONE: 619-238-0999 CURRENT APPLICATION DATA: NUMBER OF SEQUENCES: 1 FEATURE: MOLECULE TYPE: APPLICANT: Elliot, Kathryn J. APPLICANT: Ellis, Steven B. APPLICANT: Harpold, Michael M. FITLE OF INVENTION: HUMAN NEURONAL NICOTINIC ACETYLCHOLINE FITLE OF INVENTION: RECEPTOR COMPOSITIONS AND METHODS EMPLOYED NAME: Seidman, Stephanie L REGISTRATION NUMBER: 33,779 REFERENCE/DOCKET NUMBER: 6362-9950 SOFTWARE: FastSEQ Version 1.5 COMPUTER: IBM CO OPERATING SYSTEM: STRANDEDNESS: TOPOLOGY: bot TYPE: nucleic acid TELEFAX: 619-238-0062 COUNTRY: ADDRESSEE: 7, Application US/08466589). 5837489 92101-2926 San Diego Ç 1660 Union Street USA CDS 73..1581 poth IBM Compatible Brown, Martin, Haller & McClaim CDNA both EMPLOYING SAME